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Strength Through Science

National Science and Technology Council Research Business Models Subcommittee: *Improving Collaborations between the DOE National Laboratories and Universities*

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Research Business Models SubCom *Founding Principles*

- Science is dramatically becoming more interdisciplinary with an increasing number of collaborations occurring within and across institutions.
- Federal research agency interests are more clearly converging or overlapping and becoming more cross-programmatic.
- Agency requirements for proposals, terms and conditions, payment systems, reporting, and oversight are often incoherent and force scientists and institutions to cope with the burden of multiple and inconsistent requirements.
- A new business model must foster interdisciplinary and collaborative research in a consistent and streamlined fashion in order to maximize the public investment in research.
- The Research Business Model process needs to be science driven to provide a rationale for individual activities and managed as an integrated whole whose sum is greater than the parts.

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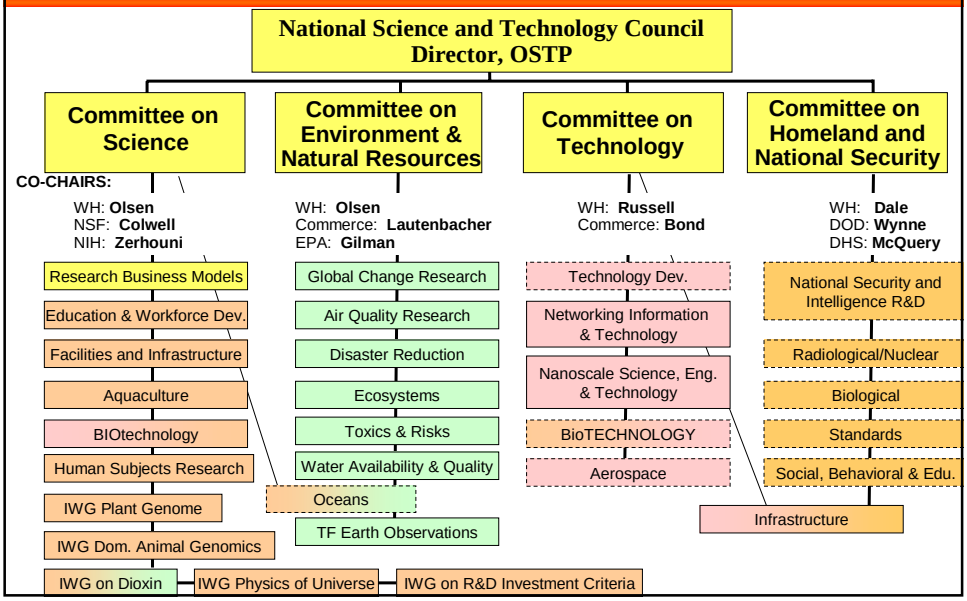
National Science & Technology Council
Organization



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Research Business Models
Purpose

- The purpose of the Subcommittee on Research Business Models is to advise and assist the Committee on Science and the NSTC on policies, procedures, and plans relating to business models to improve the efficiency, effectiveness and accountability of the Federal research and development enterprise in a manner cognizant of currently available resources. The Subcommittee will:
  - Facilitate a strong, coordinated effort across federal agencies to identify and address important policy implications arising from the changing nature of basic and applied research;
  - Examine the concomitant influence these changes have had or should have on business models and business practices for the conduct of basic and applied research sponsored by the Federal government and carried out by academic, industrial, and government entities;
  - Review the challenges to improved performance and mechanisms for more transparent accountability of the research enterprise

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Research Business Models
Goals

The goal of the RBM is not to issue a report, but to solve problems.

- Facilitate a coordinated effort across Federal agencies to identify and address important policy implications arising from the changing nature of scientific research
- Examine the concomitant impacts these changes have had or should have on business models and business practices for the conduct of scientific research sponsored by the Federal government and carried out by academic, industrial, and government entities

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Research Business Models
Organization

The Subcommittee is organized into three working groups:

1. Common Practices Among Agencies
   - Co-Chairs: Tom Cooley (NSF), Diane Thompson (NASA)
2. Alignment of Funding Mechanisms with Scientific Opportunities
   - Co-Chairs: Nat Pitts (NSF), Christine Chalk (DOE)
3. Appropriate Costs of Research Enterprise
   - Chair: Chuck Paoletti (DOD)

- Membership
  - Commerce: NIST, NOAA
  - DOD: ONR, OD-DRE
  - DOE
  - DOT
  - Education
  - EPA
  - HHS: NIH, FDA, DCA
  - Interior: USGS
  - NASA
  - NSF
  - OMB
  - OSTP
  - USDA
  - VA

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Research Business Models
Chronology

1. August 6, 2003- Request for Information in the Federal Register
2. October 6, 2003- Public comments due
3. Four Regional meetings

   October 27- Lawrence Berkeley National Laboratory and UC California

   November 12- University of Minnesota

   November 17- University of North Carolina, Chapel Hill, Research Triangle Institute, and Duke University

   December 9 and 10 - USDA, Washington, D.C.
4. January, 7 and 15, 2004- RBM Subcommittee Retreat
5. February 9, 2004 - Committee on Science endorsement of ten initiatives resulting from public comment
6. July 13, 2004 Status Report to CoS
7. Early Fall, 2004- RBM Subcommittee Options to Committee on Science

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Research Business Models
Principles

- *Science-*
  - Principle: *"Maximize the Public Investment in Science by Maximizing the Intellectual Capital of Our Scientists"*
- *Partnership-*
  - Principle: *"Collaborate on Business Systems While Supporting Outstanding Research Projects"*
- *Accountability-*
  - Principle: *"Make it Easy to Do the Right Thing"*
- *Administration-*
  - Principle: *"Let Science Drive Administration, Not Administration Drive Science"*

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Ten Initiatives Endorsed by the NSTC Committee on Science

- **FS-1** Acknowledgement of CO-PIs in proposals and agency information systems
- **FS-2** Stability and predictability of support for research facilities and instrumentation independent of individual projects
- **FS-3** Support for graduate and postdoctoral students with regard to salary, stipends, tuition, benefits, etc.
- **FS-4** Collaboration between universities, federal laboratories, and industry
- **CP-1** Standard progress and financial reporting procedures.
- **CP-2** Broader use of the Federal Demonstration Partnership (FDP) model sub-agreement templates
- **CP-3** Consistent award notices format and terms and conditions
- **CP-4** Consistent Federal-wide policies for Research Misconduct
- **CP-5** Consistent Federal-wide policies for Research Conflict of Interest
- **CA-1** A-133 monitoring requirements for A-133 compliant institutions.

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FS-4 **Collaboration between universities, federal laboratories, and industry**

- Interagency working Group formed
  - Department of Energy
  - National Institutes of Health
  - National Science Foundation
- Looking at:
  - Work For Others Order – DOE group
  - Pass Through Rules - Interagency
  - Legislative Changes? – Interagency/NSTC

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Key Strategies

a) Develop a model subcontract for standard research awards between DOE laboratories and universities/nonprofit organizations.

b) Review the feasibility of using this model for research awards from other federal laboratories. If feasible, recommend to CoS a draft OSPT memorandum to encourage agencies to do so.

c) Identify burdensome policies and practices in DOE work-for-others process. The RBM representatives will work with DOE staff to determine if any of these burdensome policies/practices can be changed. If so, the representatives will work with DOE staff to implement appropriate changes.

d) Look at the impact of "pass-through" rules on collaborations and identify flexibilities and mechanisms for exercising them.

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Action Plan

1. Stewards
   - *Christine Chalk (Lead DOE Effort)*
   - *Mary Kirker (Lead Non-DOE Effort).*
2. Key Players: RBM representatives, DOE Procurement Executive, DOE procurement staff, FDP representatives, and DOE laboratory representatives.
3. Major Action Items
   - Develop model subcontract for standard research awards between DOE laboratories and universities/non-profit organizations.
   - Identify burdensome policies/practices in the DOE Work-for Other Process
   - Determination if such policies/practices can be changed. If so, work with DOE to implement changes. Otherwise work with other agencies.
4. Milestones

ACTION ITEM	TARGET DATE
• Develop DOE laboratory model subcontract	April 2004
• Identify burdensome policies/practices in the DOE work-for-other process	Fall 2004
• Determine if these policies/practices can be changed	Early 2005

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Web site: http://rbm.nih.gov

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Backup

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FS-4 **Collaboration between universities, federal laboratories, and industry**

Description: Scientist to scientist linkages across organizational boundaries enhances the potential for creative and innovative progress in science. Issues include the use of non-standard terms and conditions that often prolong negotiations and delay subcontract execution, non-standard requirements for the amount of support documentation required to process payments, and non-applicability of some clause flowdowns to nonprofit institutions. When money flows from a university to a DOE laboratory, DOE requires the university to use its 'work-for other process,' which is also burdensome and may take an inordinate amount of time to complete. The universities did not appear to have similar problems with other federal laboratories.

Scope and Key Results: The short term objective is to develop a model subcontract for standard research awards between DOE laboratories and universities/non-profit organizations. Once the model is developed, the subcommittee will determine if the model is appropriate or can be modified for use with other federal laboratories. If it is deemed appropriate, the Working Group may propose a policy memorandum form OSTP to heads of agencies recommending its use for other contractor operated federal laboratories. The subcommittee members will also work with DOE to determine if its work-for-others process can be simplified when funds flow from universities to DOE laboratories.

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Science

- ***Principle: "Maximize the public investment in science by maximizing the intellectual capital of our scientists"***
  - ***Investigator initiated research is fundamental to the development of new knowledge and must remain unfettered by unnecessary administration***
  - ***Research increasingly crosses the boundaries of traditional disciplines***
  - ***It is essential to facilitate the collaboration of multidisciplinary teams within and across institutions, including Federal Labs and other partners***

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Partnership

- **Principle: *"Collaborate on Business Systems While Supporting Outstanding Research Projects"***
  - ***Each party has a stake in the performance, success, and financial viability of the other***
  - ***The business relationship with many institutions should be managed at an organizational level, not a transactional level***
  - ***Other, smaller organizations have less capacity to deal with requirements and require more outreach and support***

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Accountability

- **Principle: *"Make it Easy to Do the Right Thing"***
  - ***Facilitate stewardship and accountability by emphasizing principles and streamlining procedures***
  - ***Promote science while keeping administrative procedures as streamlined and transparent as possible.***
  - ***Emphasize accountability thru scientific outcomes, with tolerance for risk and negative findings, evaluated through publications, progress reports, and peer review***

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Administration

- **Principle:** ***"Let Science Drive Administration, Not Administration Drive Science"***
  - ***Promote sound business models for research***
  - ***Promote consistent goals, and equitable and effective regulations and practices that reflect the diversity of research organizations***
  - ***Provide for an effective compliance infrastructure which is as essential to the conduct of research as the quality of facilities, instrumentation, and other resources***
  - ***Provide one E.government information exchange for proposals, awards, and reports***

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Common Practices Among Agencies

- Policies and procedures among agencies
- Streamlining & unifying grants administration practices
- Impact of regulation and administrative requirements
- Variation in agency treatment of indirect costs: common and uncommon practices

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Alignment of Funding Mechanisms with Scientific Opportunities

- Policies for construction and maintenance of research infrastructure
- Size and type of grant and contract award
- Mix of investigators in academia and government labs
- University-Private partnership, and associated policies and impacts

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Appropriate Costs of Research Enterprise - Determination, Recovery, Accountability

- Changing nature of science and the determination/recovery of costs of research
- Impact of IT on the efficiency of the research enterprise
- Status, efficiency and performance of the government-university partnership